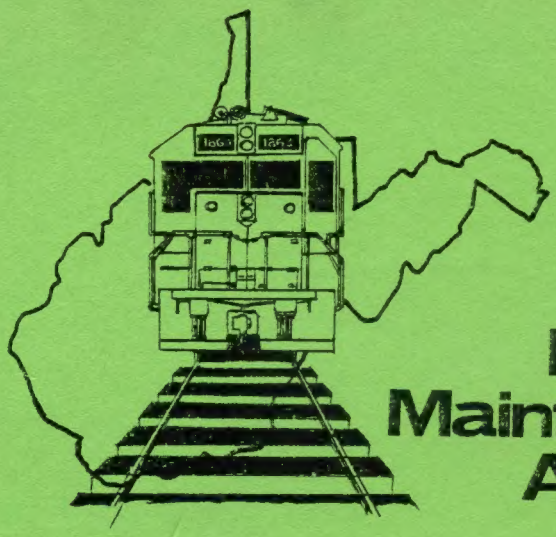

West Virginia Railroad Maintenance Authority

South Branch Rail Line

ESTABLISHED 1884

Ford, Bacon & Davis
Incorporated
Engineers

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600 NORTH JACKSON STREET
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CORPORATE
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2 BROADWAY
NEW YORK N.Y. 10004

June 25, 1977

Mr. John P. Killoran,
Executive Director
West Virginia Railroad Maintenance Authority
922 Quarrier Street
Charleston, West Virginia 25301

Dear Mr. Killoran:

We have completed our analysis of the South Branch of the Baltimore and Ohio Railroad Company and are enclosing herewith the final report.

Our analysis indicates that the South Branch should become profitable within a five-year time frame. This prediction is based on certain confidential projections obtained from shippers during interviews and which cannot be included in the report due to their proprietary nature.

We appreciate very much the cooperation extended to us by the West Virginia Railroad Maintenance Authority. Both you and Mr. Fred Wengenroth were particularly helpful in supporting our personnel.

Very truly yours,

Ford, Bacon & Davis, Inc.

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EXECUTIVE SUMMARY

The Baltimore and Ohio Railroad Company (B&O) has asked for authority to discontinue service and abandon the South Branch which runs between Green Spring and Petersburg, West Virginia. The West Virginia Railroad Maintenance Authority (Authority) has retained Ford, Bacon & Davis, Inc. (Engineers) to analyze the alternatives available to the State for maintaining service.

During the past five years, both traffic and revenue on the line have been decreasing and the B&O has experienced a financial loss from operations. As a result, the line is being maintained with a a minimum of expenditure.

The basic alternatives considered for maintaining service on the South Branch were:

1. Ownership and operation by the B&O.
2. Ownership by West Virginia with operation by the B&O.
3. Ownership by West Virginia with operation by a private short line operator.
4. Ownership and operation by West Virginia.
5. Ownership and operation by a short line operator.

For each alternative, costs and revenue were projected for five years hence under the following four assumptions:

1. Existing level of service and track condition.
2. Upgrade the line to Federal Railroad Administration (FRA) Class II.

3. Upgrade the line to a 263,000-pound weight limit.
4. Upgrade the line to FRA Class II and a 263,000-pound weight limit.

The analyses of the South Branch performed by the Engineers support the following conclusions:

1. The operation of the line should become profitable within five years time.
2. Carloadings and revenue reached a low point in 1976 and should show an increase for the next several years.
3. Neither rehabilitation to FRA Class II nor upgrading to 263,000-pound limit is economically justified at present.
4. Abandonment of rail service on the line would have serious adverse socioeconomic effects on the residents of Grant, Hardy, and Hampshire Counties.
5. Abandonment of rail service would have negligible impact on the environment.
6. Profitable operation of a short line on the South Branch would require a very favorable division of revenue with the B&O.

Based on the foregoing conclusions, the following recommendations are made:

1. If a Certificate of Convenience and Necessity

permitting abandonment of service on the South Branch is granted by the Interstate Commerce Commission, the Authority should offer a rail service continuation payment to the B&O.

2. The Authority should investigate the division of revenue which a short line operator could negotiate with the B&O based on actual traffic.
3. The Authority should work to ensure that shippers on the South Branch receive an adequate supply of cars so that increased car loadings could be realized.
4. The Authority should reexamine the economic feasibility of rehabilitation to FRA Class II and upgrading to a 263,000-pound limit at such time as the line becomes profitable.

Chapter 1

INTRODUCTION

On March 17, 1975, the Baltimore and Ohio Railroad Company (B&O) applied to the Interstate Commerce Commission (ICC) for a Certificate of Convenience and Necessity to permit the abandonment of the South Branch running between Valuation Station 32+00 at Green Spring, West Virginia and Valuation Station 2746+11 at Petersburg, West Virginia a distance of 51.4 miles. This application was later withdrawn but a new application was filed on October 27, 1976. The B&O seeks authority to discontinue service and abandon the line itself.

Under the provisions of the Regional Rail Reorganization Act of 1973 and the Railroad Revitalization and Regulatory Reform Act of 1976, the State of West Virginia has available to it several options for maintaining service on the line. The West Virginia Railroad Maintenance Authority (Authority) is the Designated State Agency for statewide rail planning and represents the State in matters concerning the railroad industry.

The Authority has retained Ford, Bacon & Davis, Inc. (Engineers) to analyze the alternatives available to the State for maintaining service. The analysis is to include estimates of costs and revenues which would accrue for each alternative under several levels of service and

track conditions. Based on this analysis and the socio-economic and environmental impacts involved, the Engineers are to recommend a course of action for the State.

The following chapters contain the Engineers' report of their analysis of twenty separate alternatives for rail service continuation and an estimation of the socio-economic and environmental impacts which would result from abandonment of the line.

Unless otherwise obvious from the context, shipper is used to mean both shipper and receiver. The South Branch serves Hampshire, Grant and Hardy Counties, West Virginia. These are the counties which would primarily be affected by rail service abandonment and which contain all but a few of the shippers. At times they are referred to collectively in the following as the "Three Counties" or the "Valley".

Chapter 2

CURRENT RAIL CHARACTERISTICS

The South Branch of the Baltimore & Ohio Railroad is a single-track 51.4-mile line from Green Spring, West Virginia at the Maryland state line to Petersburg, West Virginia, serving portions of Hampshire, Hardy, and Grant Counties. The location of the branch is presented in Figure 1 and characteristics of the line are described in the sections that follow.

Rail Facilities

Twenty-five miles of the branch is constructed of 85-pound rail which is 65 years old. Fifty-five year old 90-pound rail accounts for 9.3 miles of the branch while the remaining mileage is constructed of 50 year old 100-pound rail. The branch includes 39 timber bridges and 2 steel bridges consisting of 4,678 feet of timber and 1,562 feet of steel. The line has 69 road crossings at grade, 48 of which are private. Three station buildings are located along the line, at Moorefield, West Romney, and Petersburg.

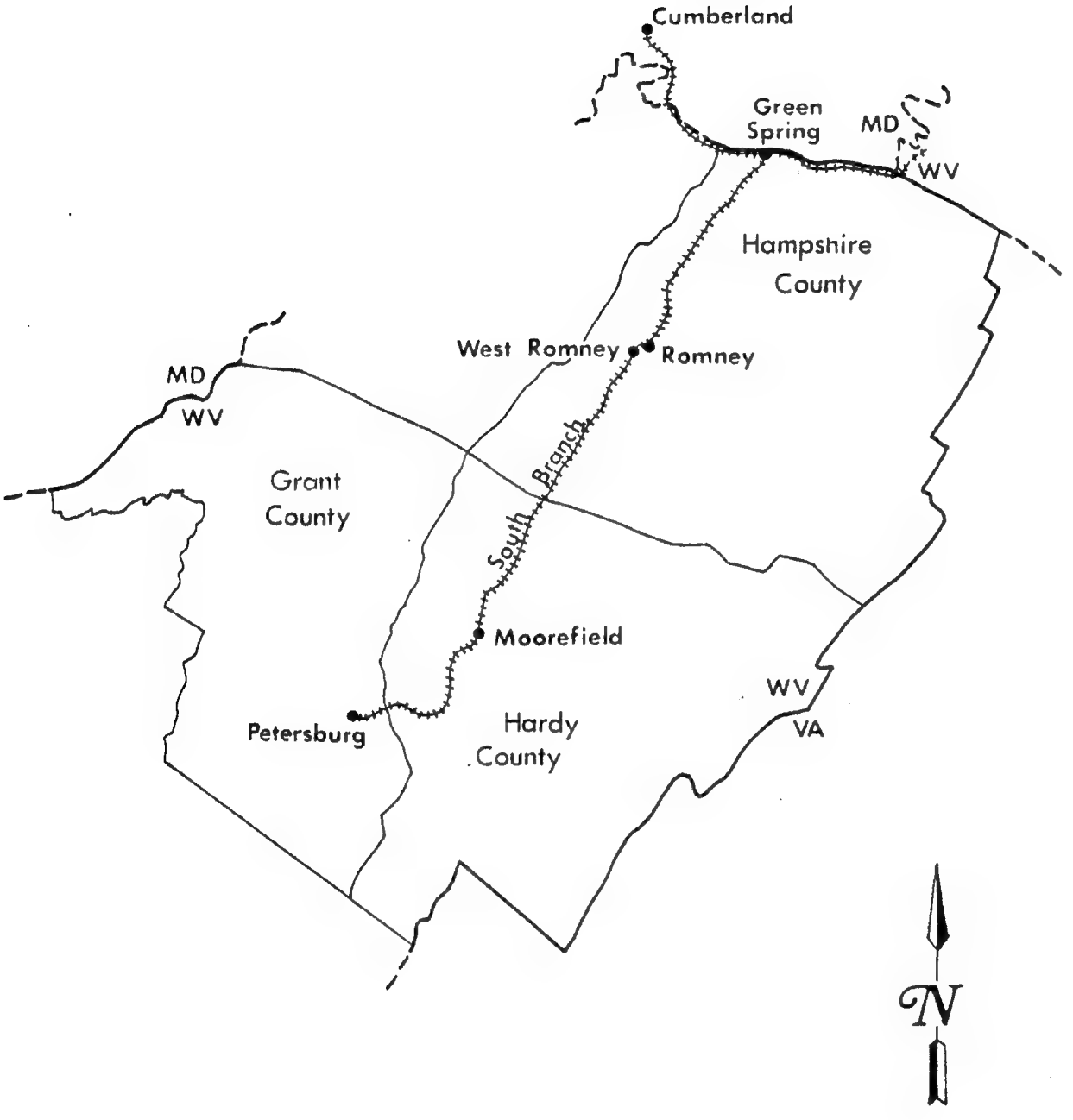
Track Condition

The South Branch is Federal Railroad Administration (FRA) Class I track with a 10 mph speed limit. A major problem is a deteriorated condition of cross ties. An average of 300 ties per mile should be replaced to bring the track to FRA Class II with a 25 mph speed limit. The condition of the ballast along

Figure 1

LOCATION OF THE SOUTH BRANCH

Ford, Bacon & Davis



the entire length of track requires improvement and the track should be surfaced and lined. Bolts need to be tightened or renewed at a few locations and some ditching work is required. Current weight restrictions for the track are 251,000 pounds gross between Green Spring and West Romney and 210,000 pounds gross between West Romney and Petersburg.

Freight Service

Local freight service is provided between Petersburg, West Virginia and Cumberland Yard in Maryland. This service operates to Petersburg on Mondays, Wednesdays, and Fridays, returning to Cumberland on Tuesdays, Thursdays, and Saturdays. The stations on the Branch and their distance from the junction at Green Spring are shown on the following table:

Station Locations

Station	Milepost	Station	Milepost
Millen	1.3	West Romney	17.2
Donaldson	3.3	Hampshire Club	20.7
Milleson	7.3	Johnson	22.4
Springfield	7.5	Pancake	23.7
Grace	9.2	Glebe	26.2
Ritter	10.0	Camp Wickham	27.5
Ridgedale	10.9	McNeill	33.3
Rocks	12.5	Cunningham	36.7
Vance	13.3	Moorefield	39.1
Wapocomo	15.2	Durgon	46.9
Romney Jct.	15.4	Welton	48.8
Romney	16.2	Petersburg	51.9

The local train is normally operated by a four-man crew and occasionally by a five-man crew. The crew call time at Cumberland is 7:00 AM and at Petersburg is 8:00 AM.

Traffic and Revenue

Except for modest increases during 1972 and 1974, annual car traffic on the South Branch has been decreasing in recent years, dropping from 2,078 cars in 1969 to 822 in 1976. The annual traffic activity of the past 3 years is as follows:

Traffic Characteristics

Year	Cars	Tons	Revenue
1974	1,637	73,570	$560,576
1975	1,121	51,693	427,089
1976	822	30,160	373,506

During 1976, flood damage caused the closing of a bridge between West Romney and Romney Junction from October 12 to November 29. Although service south of West Romney resumed at the end of November, the embargo on shipments was not lifted until January 7, 1977. This accounts for part of the traffic decrease during that year.

Most of the branch car traffic originates or terminates at the Petersburg Station. During 1975 and 1976, this station handled 65 percent of the South Branch car traffic

and accounted for 62 percent of the Branch revenue and 84 percent of the Branch car tonnage. The Moorefield Station handled about 29 percent of the Branch traffic, 5 percent was handled at Romney, and all other stations accounted for only 1 percent of the traffic.

Chapter 3

RAIL SERVICE CONTINUATION ALTERNATIVES

Description of Alternatives

A wide range of alternative actions concerning future rail service on the South Branch were selected and investigated, ranging from the purchase and operation of the branch line and service by the State of West Virginia to the abandonment of rail service. Continuation assistance for branch lines in West Virginia are subject to the provisions of the Regional Rail Reorganization Act (RRR Act) until 1 April, 1978. After that time, continuation assistance programs come under the Railroad Revitalization and Regulatory Reform Act of 1976 (RRRR Act). The financial assistance options selected for analysis include the complete range of actions which may be available under both of those laws.

The basic alternatives considered were:

1. Ownership and operation by the B&O.
2. Ownership by West Virginia with operation by the B&O.
3. Ownership by West Virginia with operation by a private short line operator.
4. Ownership by West Virginia with operation by West Virginia.
5. Ownership and operation by a short line operator.

The Railroad Maintenance Authority requested that costs and revenue be projected under the following four assumptions:

1. Existing level of service and track condition.
2. Upgrade the line to FRA Class II.
3. Upgrade the line to a 263,000-pound weight limit.
4. Upgrade the line to FRA Class II and a 263,000-pound weight limit.

For each of the basic ownership operation alternatives, the avoidable costs of providing service on the branch line would vary for each of the four assumptions as to level of service and track conditions. Therefore, the total number of rail service continuation alternatives considered is four times five, or twenty. In addition, six alternatives for service discontinuation are included. The major characteristics of these alternatives are described as follows:

<u>Alternative A</u>
Owner: B&O
Operator: B&O
Track Condition: Class I
Comments: B&O to receive subsidy support

<u>Alternative B</u>
Owner: B&O
Operator: B&O
Track Condition: Rehabilitated to Class II
Comments: B&O to receive subsidy support

<u>Alternative C</u>
Owner: B&O
Operator: B&O
Track Condition: Upgraded to handle 263,000-pound cars
Comments: B&O to receive subsidy support

Alternative D	Owner: B&O Operator: B&O Track Condition: Rehabilitated to Class II and upgraded to handle 263,000-pound cars. Comments: B&O to receive subsidy support
Alternative E	Owner: West Virginia Operator: B&O Track Condition: Class I Comments: B&O to receive subsidy support.
Alternative F	Owner: West Virginia Operator: B&O Track Condition: Rehabilitated to Class II Comments: B&O to receive subsidy support
Alternative G	Owner: West Virginia Operator: B&O Track Condition: Upgraded to handle 263,000-pound cars Comments: B&O to receive subsidy support
Alternative H	Owner: West Virginia Operator: B&O Track Condition: Rehabilitated to Class II and upgraded to handle 263,000-pound cars Comments: B&O to receive subsidy support
Alternative I	Owner: West Virginia Operator: Short line operator Track Condition: Class I Comments: Operator to receive subsidy support
Alternative J	Owner: West Virginia Operator: Short line operator Track Condition: Rehabilitated to Class II Comments: Operator to receive subsidy support

Alternative K	Owner: West Virginia Operator: Short line operator Track Condition: Upgraded to handle 263,000-pound cars Comments: Operator to receive subsidy support
Alternative L	Owner: West Virginia Operator: Short line operator Track Condition: Rehabilitated to Class II and up graded to handle 263,000-pound cars Comments: Operator to receive subsidy support
Alternative M	Owner: West Virginia Operator: West Virginia Track Condition: Class I Comments: The State to be responsible for operating deficits
Alternative N	Owner: West Virginia Operator: West Virginia Track Condition: Rehabilitated to Class II Comments: The State to be responsible for operating deficits
Alternative O	Owner: West Virginia Operator: West Virginia Track Condition: Upgraded to handle 263,000-pound cars Comments: The State to be responsible for operating deficits
Alternative P	Owner: West Virginia Operator: West Virginia Track Condition: Rehabilitated to Class II and up-graded to handle 263,000-pound cars Comments: The State to be responsible for operating deficits
Alternative Q	Owner: Short line operator Operator: Short line operator Track Condition: Class I Comments: Operator to receive subsidy support

Alternative R	Owner: Short line operator Operator: Short line operator Track Condition: Rehabilitated to Class II Comments: Operator to receive subsidy support
Alternative S	Owner: Short line operator Operator: Short line operator Track Condition: Upgraded to handle 263,000-pound cars Comments: Operator to receive subsidy support
Alternative T	Owner: Short line operator Operator: Short line operator Track Condition: Rehabilitated to Class II and up graded to handle 263,000-pound cars Comments: Operator to receive subsidy support
Alternative U	Owner: West Virginia Operator: None Track Condition: Class I Comments: Place the branch in a rail bank
Alternative V	Same as Alternative U but additionally with the construction of alternate transportation facilities
Alternative W	Owner: None Operator: None Track Condition: Abandoned and removed
Alternative X	Same as Alternative W but additionally with the construction of alternate transportation facilities
Alternative Y	Owner: B&O Operator: None Track Condition: Class I Comments: Place the branch in a rail bank
Alternative Z	Same as Alternative Y but additionally with the construction of alternate transportation facilities

Alternatives which involve changes of work rules for B&O employees were not considered since it was felt that the chance of obtaining such changes was very remote. Also, alternatives which involve reduction in service were not considered. Information received from shippers in the questionnaires and interviews indicated that a reduction in service would adversely affect car loadings.

In the cases of alternatives involving subsidization, West Virginia would be responsible for the administration of the subsidy program. All available sources of subsidy funding should be investigated including Federal programs, local funds, West Virginia programs, and private sources (such as the shippers).

The additional transportation facilities included in Alternatives V, X, and Z consist of a bucket elevator and storage hoppers to transfer feed and grain from rail cars to trucks, and a motor, piping, and storage hoppers to transfer lime from trucks to rail cars. The grain transfer facility would be located at Green Spring and the lime transfer facility at Elkins.

Costs of Alternatives

The annual costs associated with each of the alternatives that were evaluated are presented in Table 1. The maintenance-of-way expenses for Class II track are

detailed in Appendix A. The transportation expenses of the alternatives concerning Class II track were revised to reflect time savings ultimately resulting from track rehabilitation. These time savings affect the train crew, train fuel, train supplies, and locomotive depreciation costs (ICC uniform system accounts 331(52), 392, 394, 401, and 402). The transportation costs of the short line operation alternatives are based on different labor rates and requirements than those of the B&O-oriented alternatives. There are no operating costs assigned to the rail-banking alternatives. Inevitably there would be some incremental costs associated with security, occasional inspections, and liability, but they would be minimal.

The tax expenses include carrier income taxes, calculated at 3.3 percent of annual gross revenue, and local property taxes.

The annual costs for each alternative include both annual expenses and annualized capital costs. Under these circumstances it is necessary to select an appropriate interest rate. It is generally assumed for economic studies that this should be the minimum attractive rate of return. In its standards for Determining Rail Service Continuation Subsidies the Rail Services Planning Office (RSPO) of the ICC specifies that the reasonable return on the value of rail

properties shall be the interest rate that is equal to the publicly quoted yield for United States Treasury bonds or notes. For this study the prevailing interest yield of 6.75 percent for government securities on April 11, 1977 as reported in the Wall Street Journal has been used for annualizing all capital costs except for equipment purchases. Equipment purchases have been amortized at 9 percent, a rate taken as being representative of current rates on equipment trusts.

Table 1

Annual Costs of Alternatives

Cost Item	Alternative					
	A	B	C	D	E	F
Maintenance of Way	135,000	153,012	135,000	153,012	135,000	153,012
Maintenance of Equipment	51,337	50,433	45,598	44,694	51,337	50,433
Transportation	219,626	162,651	219,626	162,651	219,626	162,651
Taxes	48,553	48,553	49,763	49,763	34,969	34,969
Off-branch	376,063	376,063	318,130	318,130	376,063	376,063
Rehabilitation to Class II	-	52,787	-	52,787	-	52,787
Upgrading to handle 263,000-pound cars	-	-	119,152	119,152	-	-
Other construction or improvement of branch or alternate transportation facilities	-	-	-	-	-	-
Equipment purchase	-	-	-	-	-	-
Total avoidable costs	830,579	843,499	887,269	900,189	816,995	829,915
Reasonable return on value	65,417	65,417	65,417	65,417	-	-
Reasonable management fee	47,684	47,684	49,335	49,335	47,684	47,684
Total costs	943,680	956,600	1,002,021	1,014,941	864,679	877,599
Branch purchase price	-	-	-	-	969,139	969,139

Table 1

Annual Costs of Alternatives

Cost Item	Alternative					
	G	H	I	J	K	L
Maintenance of Way	135,000	153,012	107,594	121,950	107,594	121,950
Maintenance of Equipment	45,598	44,694	38,126	36,416	32,780	31,070
Transportation	219,626	162,651	107,168	66,320	107,168	66,320
Taxes	36,179	36,179	8,742	8,742	9,045	9,045
Off-branch	318,130	318,130	-	-	-	-
Rehabilitation to Class II	-	52,787	-	52,787	-	52,787
Upgrading to handle 263,000-pound cars	119,152	119,152	-	-	119,152	119,152
Other construction or improvement of branch or alternate transportation facilities	-		8,304	8,304	8,304	8,304
Equipment purchase	-		17,293	17,293	17,293	17,293
Total avoidable costs	873,685	886,605	287,227	311,812	401,336	425,921
Reasonable return on value	-	-	-	-	-	-
Reasonable management fee	49,335	49,335	11,921	11,921	12,334	12,334
Total costs	923,020	935,940	299,148	323,733	413,670	438,255
Branch purchase price	969,139	969,139	969,139	969,139	969,139	969,139

Table 1

Annual Costs of Alternatives

Cost Item	Alternative					
	M	N	O	P	Q	R
Maintenance of Way	107,594	121,950	107,594	121,950	107,594	121,950
Maintenance of Equipment	38,126	36,416	32,780	31,070	38,126	36,416
Transportation	107,168	66,320	107,168	66,320	107,168	66,320
Taxes	-	-	-	-	22,326	22,326
Off-branch	-	-	-	-		-
Rehabilitation to Class II	-	52,787	-	52,787		52,787
Upgrading to handle 263,000-pound cars	-	-	119,152	119,152		-
Other construction or improvement of branch or alternate transportation facilities	8,304	8,304	8,304	8,304	8,304	8,304
Equipment purchase	17,293	17,293	17,293	17,293	17,293	17,293
Total avoidable costs	278,485	303,070	392,291	416,876	300,811	325,396
Reasonable return on value	-	-	-	-	73,112	73,112
Reasonable management fee	-	-	-	-	11,921	11,921
Total costs	278,485	303,070	392,291	416,876	385,844	410,429
Branch purchase price	969,139	969,139	969,139	969,139	969,139	969,139

Table 1

Annual Costs of Alternatives

Cost Item	Alternative	
	Y	Z
Maintenance of Way	-	-
Maintenance of Equipment	-	-
Transportation	-	-
Taxes	-	-
Off-branch	-	-
Rehabilitation to Class II	-	-
Upgrading to handle 263,000-pound cars	-	-
Other construction or improvement of branch or alternate transportation facilities	-	6,192
Equipment purchase	-	-
Total Avoidable Costs	-	6,192
Reasonable return on value	65,417	65,417
Reasonable management fee	-	-
Total Costs	65,417	71,609
Branch purchase price	-	-

Table 1

Annual Costs of Alternatives

Cost Item	Alternative					
	S	T	U	V	W	X
Maintenance of Way	107,594	121,950	-	-	-	-
Maintenance of Equipment	32,780	31,070	-	-	-	-
Transportation	107,168	66,320	-	-	-	-
Taxes	22,629	22,629	-	-	-	-
Off-branch	-	-	-	-	-	-
Rehabilitation to Class II	-	52,787	-	-	-	-
Upgrading to handle 263,000-pound cars	119,152	119,152	-	-	-	-
Other construction or improvement of branch or alternate transportation facilities	8,304	8,304	-	6,192	-	6,192
Equipment purchase	17,293	17,293	-	-	-	-
Total avoidable costs	414,920	439,505	-	6,192	-	6,192
Reasonable return on value	73,112	73,112	-	-	-	-
Reasonable management fee	12,334	12,334	-	-	-	-
Total costs	500,366	524,951	-	6,192	-	6,192
Branch purchase price	969,139	969,139	969,139	969,139	-	-

All capital costs included in Table 1 represent the annualized cost of the total initial capital expense. As discussed in the preceeding paragraph rehabilitation, upgrading, and other construction costs are assumed to be ammortized at an annual interest rate of 6.75 percent. The total rehabilitation and upgrading costs are presented, by item, in Appendix A. The latter costs are amortized over a period of 40 years and the rehabilitation costs over 10 years. The facility construction costs of Alternatives I through T refer to the necessity of installing a 2,400-foot rail siding (with switches) at the branch junction at Green Spring. The total construction costs of this siding are $114,000. They are assumed to be amortized over 40 years. The previously-described transfer facilities required under Alternatives V, X, and Z would cost an estimated $44,000. This amount is amortized in a period of 10 years.

The equipment purchase expenses of Alternatives I through T are for the purchase of a hi-rail truck and a locomotive. The purchase price of the hi-rail vehicle ($14,000) is assumed to be amortized over 5 years at 9 percent. A rebuilt 1,200 h.p. locomotive would cost $125,000. The lease cost of a comparable locomotive would be $147,000 per year. Therefore, the purchase of the vehicle is the best option. The locomotive purchase price is assumed to be annualized for a period of 20 years at 9 percent interest.

The reasonable return on value is computed as 6.75 percent of the value of rail properties and attributable to the branch, as per the RSPO standards.

The Branch purchase price, or aquisition costs, (for Alternatives E through V) consists of the net salvage value of the track items plus the appraised value of the land property. The appraised land value is $211,000. Components of the net salvage value are listed in Appendix A.

Chapter 4

TRAFFIC AND REVENUE

Evaluation of the economic viability of the Branch requires estimates of traffic and revenue at future points in time. Since changes in level of service and the condition of the line could have an impact on traffic and revenue, the Authority requested that traffic and revenue be projtected under the four assumptions listed in Chapter 3.

The initial step in preparing the projections was to mail a survey form to 27 current, past, or prospective railroad users. A copy of the survey form is contained in Appendix D. Fourteen survey forms were returned. The firms replying accounted for 715 of the 822 cars shipped or received in 1976. With the exception of the estimates of future traffic, as discussed below, the information contained in the forms was the basic data utilized. Since the survey forms contained data which is either proprietary or confidential, a tabulation has not been included in this report.

During a review of the questionnaires which were returned, it became evident that the respondents appeared to have had difficulty in making estimates of future traffic levels. This was evidenced by the use of ranges of values, insertion of a question mark in place of a value, and the uncertainty expressed in the general remarks section. An

analysis of the data also revealed that five major shippers accounted for approximately 75 percent of the traffic. Since there were only a small number involved, it was felt that a methodology which would seek to quantify this uncertainty for the major shippers would be used to supplement the data from the questionnaires. Therefore, an interview was held with each of the major shippers to obtain the necessary data to permit the use of a probabilistic approach to estimating future traffic levels. At the outset, it was expected that both a five year and a ten year projection would be made. It quickly became apparent that the problems for the shippers in estimating future events seemed to be unmanageable for a ten year horizon and the ten year projection was abandoned.

The technique employed consists of postulating the "states of the world" which could exist at some future point in time. A person who is knowledgable is asked to assign a numerical value, to each "state of the world" which represents his best estimation of the probability that this state will exist. He can take into account any and all information, initiative feelings, hunches, and other subjective imputs available to him. The only requirement is that the numerical values assigned to his probabilities add up to one. This is necessary to permit the computation of the one "expected"

state that can be combined with the "expected" states of other respondents. Where the "states of the world" can be represented by numerical values, the "expected" state is obtained by multipling the probability assigned to each state by the numerical value for that "state" and summing the products. Mathematically:

$$\text{Expected Value} = \sum_{i=1}^{n} P_i S_i$$

where P_i = probability assigned to state i

S_i = numerical value of state i

n = number of states of the world under consideration.

The four "states of the world" which were postulated for the South Branch traffic for five years hence were as follows:

1. No change in base year traffic levels.
2. A 20 percent increase in base year traffic levels.
3. A 40 percent increase in base year traffic levels.
4. A 20 percent decrease in base year traffic levels.

For three of the five major shippers, 1976 had been very much an atypical year. Therefore, for these three shippers, it was necessary to establish a base year starting point which would reflect current conditions. For the other

two shippers 1976 was used as the base year.

It would have been possible to postulate other "states of the world" with greater or lesser values for changes in traffic levels. However, since the probabilities assigned should change correspondingly, the expected value obtained should be similar for any mutually exhaustive set of "states". It is necessary only that the "states" be realistic and that there be a sufficient number to give a distribution of probabilities.

In the same manner, expected values for all remaining feed, fertilizer, lumber, and miscellaneous shipments were computed. Probabilities were assigned based on an analysis of traffic for the past five years.

No shipper indicated that improvement of the condition of the line to FRA Class II would result in changes in his level of traffic. Therefore, a separate expected value for Class II condition was not prepared. Several shippers did state that the availability of 100-ton cars would improve their competitive position in the market. This of course changed their assigned probabilities and expected values and permitted the computation of an expected value for the 263,000-pound limit.

The projected levels of traffic were used to estimate revenues based on average revenues for typical

shipments. Since the alternatives being considered include purchase of the line by the State and operation as a short line, estimates of revenue were made for both B&O operation, and short line operation with division of revenue between the B&O and the short line operator. Based on preliminary discussions between representatives of the B&O and the Authority, a revenue division of 25 percent was used.

A summary of the results of the analysis is presented in Table 2. The projected values are presented in greater detail in Appendix C. The expected values shown for traffic and revenue are those which have been used in the evaluation of the probability of each alternative under consideration. The number of cars is reduced under the 263,000-pound load limit since several shippers would employ 100-ton cars in lieu of 60- or 70-ton cars. Although the number of cars would be fewer, the tonnage shipped or received, and consequently the revenue, would be increased. The increase in traffic and revenue from the base year to the expected values reflects planning by several shippers to increase production by taking advantage of expected improvements in their markets. The values represent approximately a 12 to 15 percent increase over the carloads handled during 1973 and 1974 and appears to be realistic in light of the information provided by the major shippers. A comparison of annual traffic and revenue is shown in Table 3.

There is one essential difference between the traffic being handled in 1973 and 1974 and the projected traffic. The shipments of pulpwood and limestone for short distances have been replaced by shipments of kitchen cabinets and grain over much longer distances. This has increased the total revenue and the average revenue per car. A chart of average revenue per car by year is presented in Figure 2. For the years 1973 through 1976, the revenue per car plots almost as a straight line. An extension of this straight line for five years would result in a revenue per car of approximately $750. The projected figure of $565 per car provides ample margin to accommodate general rate increases.

Figure 2

AVERAGE REVENUE PER CAR

Ford, Bacon & Davis

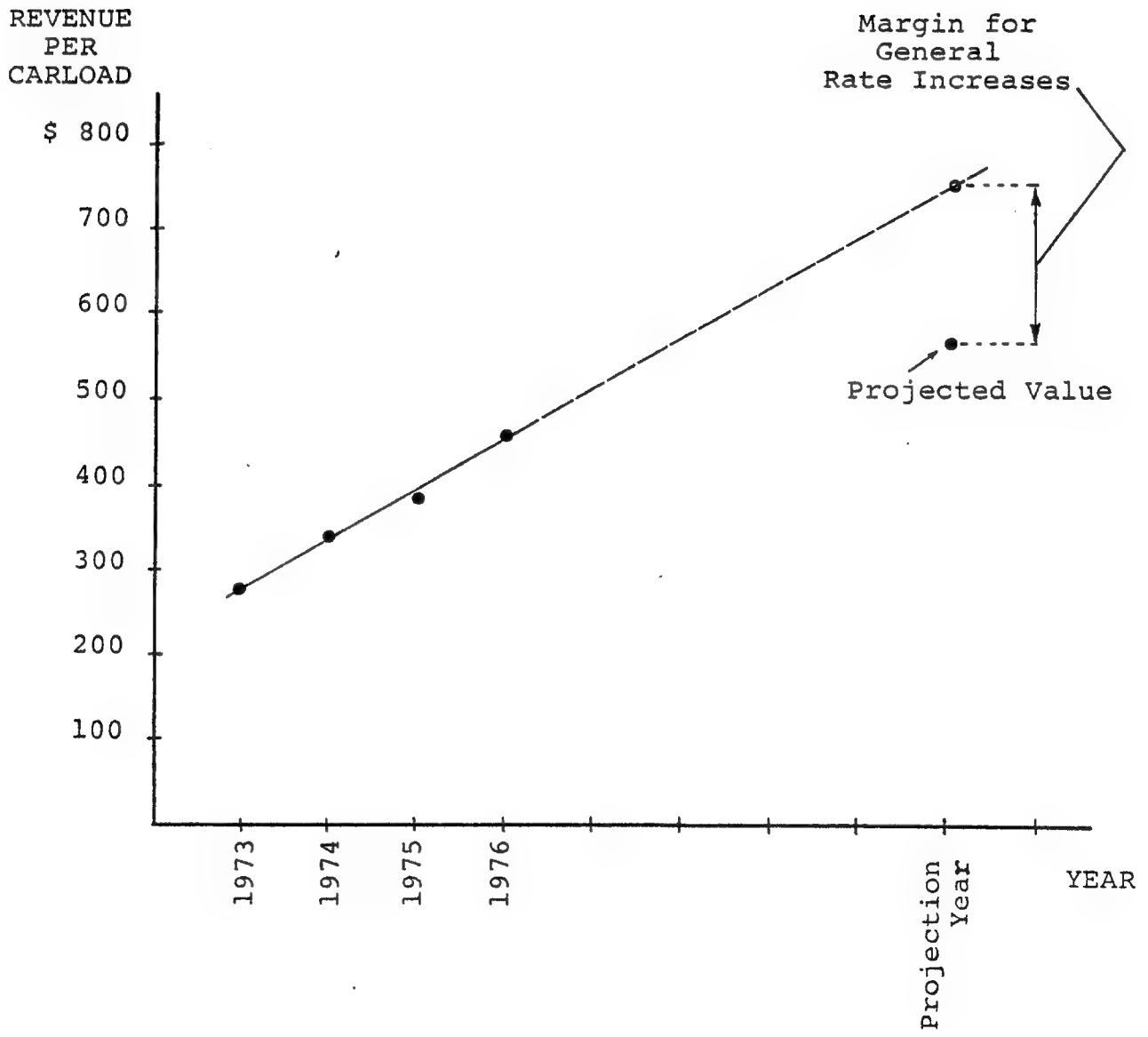


Table 2

South Branch Five Year Traffic
and Revenue Projection

Item	1976	Base Year	20% Increase	40% Increase	20% Decrease	Existing Condition Expected Value	Existing Condition Percent Increase	263,000-pound Limit Expected Value	263,000-pound Limit Percent Increase
Cars	822	1,362	1,634	1,907	1,090	1,876	38	1,587	12
Short Line Revenue	93,377	174,706	209,647	244,588	139,765	264,913	52	274,083	57
Total Revenue	373,506	698,823	838,588	978,352	559,058	1,059,653	52	1,096,332	57
Short Line Allocation Percent	25	25	25	25	25	25		25	

Table 3

South Branch Annual Traffic and Revenue Comparison

Year	Carloads	Revenue	Revenue/Carload
1973	1,598	$ 443,371	$277
1974	1,637	560,576	342
1975	1,121	427,089	381
1976	822	373,506	454
5 Year Projection	1,876	$1,059,653	$565

Chapter 5

EVALUATION OF ALTERNATIVES

The potential for profitability for each of the 20 rail service continuation alternatives is presented in Table 4. Profit and loss have been calculated on the basis of the projected revenues less the total avoidable costs and the return on investment. Where a loss would result, the amount of the subsidy that would be required to maintain operation has been determined by adding a reasonable management fee to the estimated loss.

As shown in Table 4, the Branch is projected to become profitable under B&O operation but unprofitable when operated as a short line. Even though the line is projected to become profitable in the five-year time frame, it would be necessary to offer a subsidy to the B&O until it achieves this status. The amount of the subsidy for the first year is estimated as follows:

Total Avoidable Costs		$830,579
Return on Investment	+	$ 65,417
		$895,996
Revenue	-	$698,823
Loss		$197,173
Management Fee	+	$ 31,447
Subsidy		$228,620

Table 4

Evaluation of Alternatives

Alternatives	Five-Year Projection Revenue	Total Avoidable Costs	Return on Value	Estimated Profit (Loss)	Management Fee	Estimated Subsidy
A	1,059,653	830,579	65,417	163,657	47,684	-
B	1,059,653	843,499	65,417	150,737	47,684	-
C	1,096,332	887,269	65,417	143,646	49,335	-
D	1,096,332	900,189	65,417	130,726	49,335	-
E	1,059,653	816,995	-	242,658	47,684	-
F	1,059,653	829,915	-	229,738	47,684	-
G	1,096,332	873,685	-	222,647	49,335	-
H	1,096,332	886,605	-	209,727	49,335	-
I	264,913	287,227	-	(22,314)	11,921	34,235
J	264,913	311,812	-	(46,899)	11,921	58,820
K	274,083	401,336	-	(127,253)	12,334	139,587
L	274,083	425,921	-	(151,838)	12,334	164,172
M	264,913	278,485	-	(13,572)		13,572
N	264,913	303,070	-	(38,157)		38,157
O	274,083	392,291	-	(118,208)		118,208
P	274,083	416,876	-	(142,793)		142,793
Q	264,913	300,811	73,112	(109,010)	11,921	120,931
R	264,913	325,396	73,112	(133,595)	11,921	145,516
S	274,083	414,920	73,112	(213,949)	12,334	226,283
T	274,083	439,505	73,112	(238,534)	12,334	250,868

This subsidy should decrease as the traffic on the line increases until the line becomes profitable within five years.

In evaluating the short line alternatives, the question of adequacy of car supply should be considered. Two of the five major shippers have advised that they are experiencing difficulties in obtaining cars at the present time. This may reflect management attitude toward a branch line which is scheduled for abandonment and thus be fairly readily corrected. Improvement in car supply may be more difficult to achieve if the problem is the result of an actual shortage of cars, particularly for a short line operator who does not control car supply.

A review of Table 4 indicates that neither the costs of rehabilitation to FRA Class II nor upgrading to a 263,000-pound load limit would be self-amortizing as the result of lower transportation costs and increased revenues. Pertinent costs and revenue figures are analyzed in detail in Table 5. The net increased annual costs are of such a magnitude that relatively small changes in actual revenue cost figures could make either option justifiable. Once profitability has been achieved under present level of service and track conditions, the question of rehabilitation and upgrading should be re-examined.

Table 5

Analysis of Costs and Revenues

		B&O Operation (Alternatives B, C & D; F, G & H)	Short line Operation (Alternatives J, K & L; R, S & T)
Rehabilitation to Class II			
Annual Cost of Rehabilitation		$ 52,787	$ 52,787
Increased Maintenance Cost		18,012	14,356
	Total	70,799	67,143
Decrease in Transportation Costs		56,975	40,848
Net Increased Annual Costs		$ 13,824	$ 26,295
Upgrade to 263,000-pound Limit			
Annual Cost of Upgrading		$119,152	$119,152
Increase in Revenue		36,679	9,170
Net Increased Annual Costs		$ 82,473	$109,982

Chapter 6

IMPACTS OF RAILROAD SERVICE ABANDONMENT

The socio-economic and environmental impacts of failure to maintain railroad service on the South Branch have been evaluated for the three counties served by the line, as well as for the State of West Virginia. The major impacts are discussed in the following paragraphs. Where meaningful data is available, the impacts have been quantified. Other equally important impacts are described qualitatively. The three counties comprise essentially one labor market and have been treated together in the following analysis.

Economic Impacts

Additional Transportation Costs

There are several transportation alternatives available to shippers who are deprived of railroad service. These include truck to railhead or team track, truck to barge, use of piggyback, and use of truck for the entire length of the shipment. Of the 17 shippers who replied to the survey, seven provided information on the alternative that would be employed. Of these, only two indicated use of a railhead or team track. The rest expected that their shipments would be handled entirely by truck. Based on a review of the nature of the commodities involved, it was assumed that the lowest cost mode of transportation for the

shippers, with minor exceptions, would be shipment by truck from the nearest railhead or from a supplier that was served by the nearest mainline.

In view of the aforementioned, it was decided that a conservative (lowest) estimate of additional transportation costs to shippers could be obtained by assuming that all shipments were made from or to a railhead. With the exception of the costs for two shippers who advised during an interview that they would use another railhead, costs for all shipments were estimated to Green Spring. Unit costs of 41.4¢ cents per mile for truck operation and ownership, drivers wages of $8,000 per year, and transfer costs of 50¢ to $1.00 per ton (depending upon commodity) were used. The costs were reduced by the identifiable differences in rates between Green Spring and McNeal. McNeal is the basing point for rates to most stations on the line.

When calculated in accordance with the foregoing, the total additional cost to the shippers for the five year traffic projection less cars not shipped by discontinued business is $210,928. This does not include the $6,192 annualized cost of providing a $44,000 investment in bulk transfer facilities. Federal subsidy for the cost of construction of such facilities is available under provisions of the RRR Act.

Several shippers have expressed serious misgivings that such additional costs would put them at a competitive

disadvantage for their rural customers who may have a choice of suppliers. For example, transshipment by truck of a 40-ton car of feed would add approximately $4.00, or 30 percent, to the shipping costs of each ton. The resultant loss in sales is estimated by the affected shippers to be from 5 to 25 percent.

The estimated annual subsidies for most of the short line operation alternatives is less than the annual additional shipping costs. Therefore, it is possible to assume that the shippers may be willing to pay a surcharge to offset part, or all, of the subsidy payment, rather than pay for extra shipping expenses.

Loss of Employment

Information obtained from the shipper questionnaires and interviews indicates that abandonment of rail service would result in a net loss of 54 jobs from shipper payrolls. The railroad employees that work on the line would not be affected since the home terminal is Cumberland and they could be assigned to another subdivision without requiring relocation. Such reassignment could result in displacement of less senior employees.

While small in absolute value, the 54 jobs lost would create an increase in the unemployment rate for the three counties from 7.6 percent as of January 1977 to 8.0 percent. When viewed in this way, an increase of 0.4 percent

in a region already suffering 7.6 percent unemployment is serious indeed.

The loss of 54 jobs is entirely in the manufacturing sector. This represents a 3 percent reduction in manufacturing employment. These are generally among the highest paying jobs and the annual loss in net spendable income at an average yearly salary of $8,960 is $483,840. Some of this income loss would be offset by unemployment compensation.

Loss of jobs in the other sectors such as trade and services is estimated by the shippers to be offset by increases in trucking labor.

Unemployment Compensation

Unemployment compensation in West Virginia ranges from a maximum of $128 weekly for a $192 weekly income to a minimum of $14 weekly. It is available for a 39-week period. In view of the high rate of unemployment currently existing in the three counties, it is assumed that all employees who would lose their jobs would draw compensation for the full 39 weeks. Based on available information as to current salaries, it is estimated that the average rate of unemployment compensation would be $115 per week. Total compensation for 54 employees would be $242,190.

Secondary Employment Impacts

Based on 1971 data, the ratio of service employment to basic industry employment for the three counties is approximately 1.4. Therefore, if 54 jobs are lost in basic

industries, it can be expected that approximately 76 additional jobs will be lost in the service sector, thus increasing the unemployment rate to 8.6 percent. Using an average weekly wage of $125 for service sector employees, the loss of net spendable income would be $494,000 and unemployment compensation drawn could amount to more than $246,000.

Combined Employment Impact

The quantified employment impacts described in the preceeding paragraphs are summarized in the following table.

	Jobs Lost	Unemployment Compensation	Income Lost
Basic	54	$242,190	$483,840
Secondary	76	246,012	494,000
Total	130	$448,202	$977,840

Tax Revenue Lost

The three counties now receive $13,584 in tax revenue for levies on railroad properties. These revenues largely would be lost if the service is abandoned and the property is sold since the value of the property for other uses would most likely not command the same rate as use for railroad purposes. Loss of taxes from firms which are forced out of business are difficult to estimate, but it can be expected that appreciable losses could result.

The State of West Virginia received $12,326 during 1976 in carrier income tax attributable to the South Branch The annual revenue projected within a five-year time frame would generate $34,969 in tax revenue, or $36,179 if the track is upgraded to handle 263,000-pound cars. This tax revenue would be totally lost in the event of service abandonment.

Non-Quantifiable Impacts

Both Grant and Hardy Counties have been making vigorous attempts to attract additional industry to their areas. Industrial parks have been constructed in Petersburg and Moorefield. The location of additional industry to the Grant County Airport Industrial Park has been delayed because of the need to expand the water and sewage treatment plants of the town of Petersburg. Expansion of the water treatment plant has been completed and expansion of the sewage treatment plant should begin in the spring of 1978. The construction of new industrial facilities could conceivably begin at the same time and parallel the construction of the treatment plant. The Hampshire County Industrial Development Authority has apparently not exhibited the same concern with accelerating industrial development although there are plans for an industrial park at Romney.

Railroad service is available at the Hardy County Industrial Park where the Rockingham Poultry Marketing Coop recently completed a new feed mill.

Railroad service to the Grant County industrial park would require extension of the railroad line a distance of approximately one half mile.

As discussed in Appendix B, the possibility of attracting industry which would generate large amounts of railroad traffic to these industrial parks is probably not very great. However, competition is strong among the States and the surrounding counties of the Potomac Highlands to attract industrial firms which are considering relocation to a more rural area. Although the type of light industries involved may not be major users of a railroad line, many of these industries can make effective use of railroad shipments, particularly in obtaining their raw materials at competative costs. In the competition for such firms, lack of railroad service would put the three counties at a distinct disadvantage.

A less tangible but perhaps just as real effect of railroad service abandonment would be the social-psychological impact on the residents of the Valley. Many of the residents see the Valley presently at the point of beginning an agricultural and industrial development which would allow it to reach its full potential. Loss of railroad service could constitute a serious setback in the minds of a number of residents.

Benefit/Cost Analysis

Overcoming the economic impacts of abandonment discussed thus far can be considered benefits of the cost of subsidization for railroad service continuation. The tax losses have been considered in the determination of the avoidable costs, and thus in the estimated subsidy, of each alternative. Therefore, a benefit/cost analysis would produce similar relationships between alternatives as those shown by a subsidy comparison.

Environmental Impacts

Fuel Consumed

Estimates have been made of the amount of fuel consumed by present railroad service and that which would be consumed by trucks hauling the same weight of commodities to the destinations used in calculating increased shipper costs. Estimates can vary widely depending upon the consumption rates assumed. Therefore, fuel consumed was calculated by three different methods for trucks and by two different methods for railroad and the results averaged.

Since railroad traffic is expected to increase significantly on the Branch, estimates were made for 1976 traffic and the five year projection traffic. Estimates of fuel consumed follow:

	Annual Fuel Consumed (Gallons of Diesel Fuel)	
	Truck	Rail
1976	31,245	30,919
Five-Year Projection	109,300	73,788

These results indicate that railroad service as presently operated by the B&O has approximately the same energy efficiency as truck hauling. With the increase in traffic in the five year projection, the railroad service would begin to accrue a fuel consumption advantage over motor trucks.

Air Pollution

Estimates were made of the production of the primary air pollutants (carbon monoxide, hydrocarbons, and nitrogen oxides) which would result from the consumption of the amounts of fuel shown in the previous discussion. These estimates follow:

Air pollution Production (Kilograms)

	Carbon Monoxide		Hydrocarbons		Nitrogen Oxides	
	Truck	Rail	Truck	Rail	Truck	Rail
1976	3,190	924	525	2,075	5,243	4,910
Five Year Projection	11,160	2,206	1,836	4,951	18,341	11,718

Although there appears to be significant differences in the amount of pollutants generated by mode, it is not expected that this would have a noticeable effect on the air quality in the Valley. This is because the number of trucks involved is only a small percentage of the trucks presently using the roads in the three counties. This will be discussed in detail in the next paragraph.

Highway Congestion

Three sections of highway which are expected to receive the major impact of railroad service abandonment were analyzed. The results of the analysis are shown in the following table:

	Trucks Per Day			% Increases	
Route Segment	1975	1976	1980	1976	1980
Rt. 33 Mouth of Seneca to Harman	56	58	58.5	4	5
Rt. 259 Wardensville to Entermont	72	74	75	3	4
Rt. 220 Moorefield to Junction	120	122	134	2	12

The major impact on Rt. 220 is the result of the assumption that all but a few of the shippers would use a team track at Green Spring. If this were the case, the increase of 12 percent could be significant, particularly because of the narrow bridge across the South Branch between Junction and Romney on this route.

Water Pollution

There should be no noticeable effect on the quality of the water in the South Branch as the result of abandonment of railroad service. There may be some effect on the stream bed. The railroad bridges and trestles at present trap a good deal of debris during periods of high water. If these bridge piers and trestles are removed, this debris would likely lodge in some other location, with resultant changes in the stream bed unless the debris were removed by someone other than the railroad.

Noise Pollution

There should be no noticeable effect on the noise level in the Valley resulting from the elimination of the passage of one train per day.

Chapter 7

CONCLUSIONS & RECOMMENDATION

Conclusions

The analyses of the South Branch performed by the Engineers support the following conclusions:

1. The operation of the line should become profitable within five years time.
2. Carloadings and revenue reached a low point in 1976 and should show an increase for the next several years.
3. Rehabilitation to FRA Class II and upgrading to a 263,000-pound limit is not economically justified at present.
4. Abandonment of rail service on the line would have serious adverse socioeconomic effects on the residents of Grant, Hardy, and Hampshire Counties.
5. Abandonment of rail service would have negligible impact on the environment.
6. Profitable operation of a short line on the South Branch would require a very favorable division of revenue with the B&O.

Recommendation

Based on the foregoing conclusions, the following recommendations are made:

1. If a Certificate of Convenience and Necessity permitting abandonment of service on the South Branch is granted by the ICC, the Authority should offer a rail service continuation payment to the B&O.
2. The Authority should work to ensure that shippers on the South Branch receive an adequate supply of cars so that the increased car loadings could be realized.
3. The Authority should reexamine the economic feasibility of rehabilitation to FRA Class II and upgrading to a 263,000-pound limit at such time as the line becomes profitable.
4. The Authority should explore the division of revenue which a short line operator could negotiate with the B&O based on actual traffic.

Appendix A

COSTS

Appendix A

COSTS

Rehabilitation and Upgrading

A total of $375,080 would have to be spent to rehabilitate the South Branch to FRA Class II condition standards. This task would consist of four major work items: tie renewal, surfacing, ditching, and bolt renewal. The existing rail is considered adequate to meet FRA Class II standards. Details of the costs involved are presented in the following table:

Rehabilitation Requirements

Item	Quantity	Unit Cost	Total Cost
Tie renewal	15,420 ties	$ 15.00	$231,300
Surfacing			
Install ballast	20,560 tons	3.50	71,960
Surfacing and lining	51.4 miles	750.00	38,550
Spot bolt renewal and/or tightening	51.4 miles	550.00	28,270
Miscellaneous ditching			5,000
	Total		$375,080

Upgrading of the track to permit the operation of 263,000-pound cars would require that all rail of less than 100-pound be replaced. The existing 85 and 90-pound rail

is old and will not handle the heavy loading requirements without failures. All replaced rail would be salvaged. Additionally, some of the steel in Bridges 562 and 571 would have to be replaced to withstand the loads caused by the heavier cars. Details of the required upgrading costs are presented in the following table:

Upgrading Requirements

Item	Quantity	Unit Cost	Total Cost
Replace steel bridge spans	370.5 net tons	$1200 in place	$444,600
Install 100-pound bolted rail	34.4 miles	34,627	1,191,169
Total			$1,635,769

Acquisition

The purchase price of the South Branch was calculated to be the sum of the net salvage value of the Branch and the land value of the right-of-way. The net salvage value of the track items is estimated to be $758,139. The value of the rail and other track material (OTM) was estimated based on scrap iron prices in effect during early February, 1977. While the OTM would be shipped to the Pittsburgh market area, it was determined that the rail would be shipped to the Chicago market area to take advantage of higher scrap prices, additional shipping costs notwithstanding.

The cross ties are not in adequate condition for re-use on a railroad, but some of them (assumed up to 40 percent) could be sold locally to the general public. Bridge timbers would be offered for sale as is and where is, with the purchaser having the responsibility to remove them.

The cost of recovery of bridge steel was assumed to be greater than the salvage value. Therefore no bridge steel would be salvaged. Pipes and cross drains were assumed to have no salvage value. Details of the values of salvageable items are presented in the following table:

Salvage Value

Items	Quantity	Unit Value	Total Value
Rail	7,842.2 gross tons	$ 71.50	$560,717
OTM (tie plates joint bars, bolts, spikes, and rail anchors)	1,914.5 gross tons	67.00	128,272
Ties	59,600	0.25	14,900
Bridge Timber	434 bridge spans	125.00	54,250
Total			$758,139

The fair market value of the land constituting the right-of-way was investigated and analyzed by a certified real estate appraiser. The value of the land as of April 15, 1977 was $211,000. Details of the appraisal are presented in the following tabulation:

Land Value

Land Classification	Acres	Value Per Acre	Total Value
Woodland	90	$ 200	$ 18,000
Farm land	135	1,000	135,000
Housing sites	18	1,000	18,000
Commercial	4	10,000	40,000
Total	247		211,000

Maintenance

To perpetuate FRA Class II conditions, a uniform level of maintenance activities should be performed annually. Once the condition of the track falls below FRA Class II, the same level of maintenance would not restore it to FRA Class II immediately but would produce a small improvement or no improvement each year. Maintaining the line at FRA Class II conditions would, in effect, save some annual costs associated with expensive emergency work which is required more frequently on lines of inferior condition. Elements of the annual maintenance cost that would be required for the South Branch in FRA Class II condition are presented in Table A-1.

Table A-1

Annual Maintenance Costs

After Rehabilitation to FRA Class II

Item	Quantity	Unit Cost	Total Cost
Tie renewal (ties to be renewed on a 50-year cycle)	2,700	$ 15*	$ 40,500
Rail replacement	50 tons	200	10,000
Work force	6 men	12,252	73,512
Miscellaneous tools and supplies			8,000
Ballast	25 cars	200	5,000
Spray brush			6,000
Bridge crews (labor and materials)			10,000
Total			$153,012

*Includes labor

Appendix B

GENERAL ECONOMIC ANALYSIS AND PROJECTIONS

Appendix B

General Economic Analysis and Projections

There has been a continuing trend for certain industries to relocate from metropolitan to more rural areas. The three counties in which the South Branch is located have been attempting to take advantage of this trend by attracting industry to the Valley. For instance, industrial parks have been established in each of the three county seats as an incentive to prospective industries. As assessment of the railroad traffic that would be generated by this future industrial development is extremely difficult to make without detailed knowledge of the industries involved. However, it can be assumed that large increases in industrial activity would generate at least some railroad traffic.

The potential for an increase of industrial activity would largely depend on the relative attractiveness of Hampshire, Hardy, and Grant Counties as compared to other West Virginia counties, and more particularly to counties nearby in West Virginia, Maryland, and Pennsylvania. The factors which determine this relative attractiveness for industrial location have been the subject of numerous studies. After a review of a number of such studies, the following categories of factors were selected as being of major importance:

1. Population and labor force.
2. Income and wage levels.
3. Present manufacturing and other industry characteristics.
4. Transportation facilities.
5. Taxes and rent.
6. Land availability and value.

The comparative ranking of the three counties with other counties, by factor, is presented in Tables B-1 and B-2. Each factor is ranked from highest value to lowest. A ranking of 16/22 indicates that the county being compared ranks 16th highest of the 22 counties compared. The immediate-area counties included in the comparison are presented in Figure B-1*. The results of each comparison are described in the remainder of this Appendix.

Population and Labor Force Factors

An adequate supply of suitable workers is probably the single most important factor which influences location for manufacturers and light industry. The availability of excess labor can be estimated from the total population, the size of the current labor force, and the unemployment rate. The median school year completed is a measure of the general skills level of the work force.

The three counties have among the lowest total populations and average population densities in the local area

*In addition, the Virginia independent cities of Harrisonburg and Winchester were considered as counties, data availability permitting.

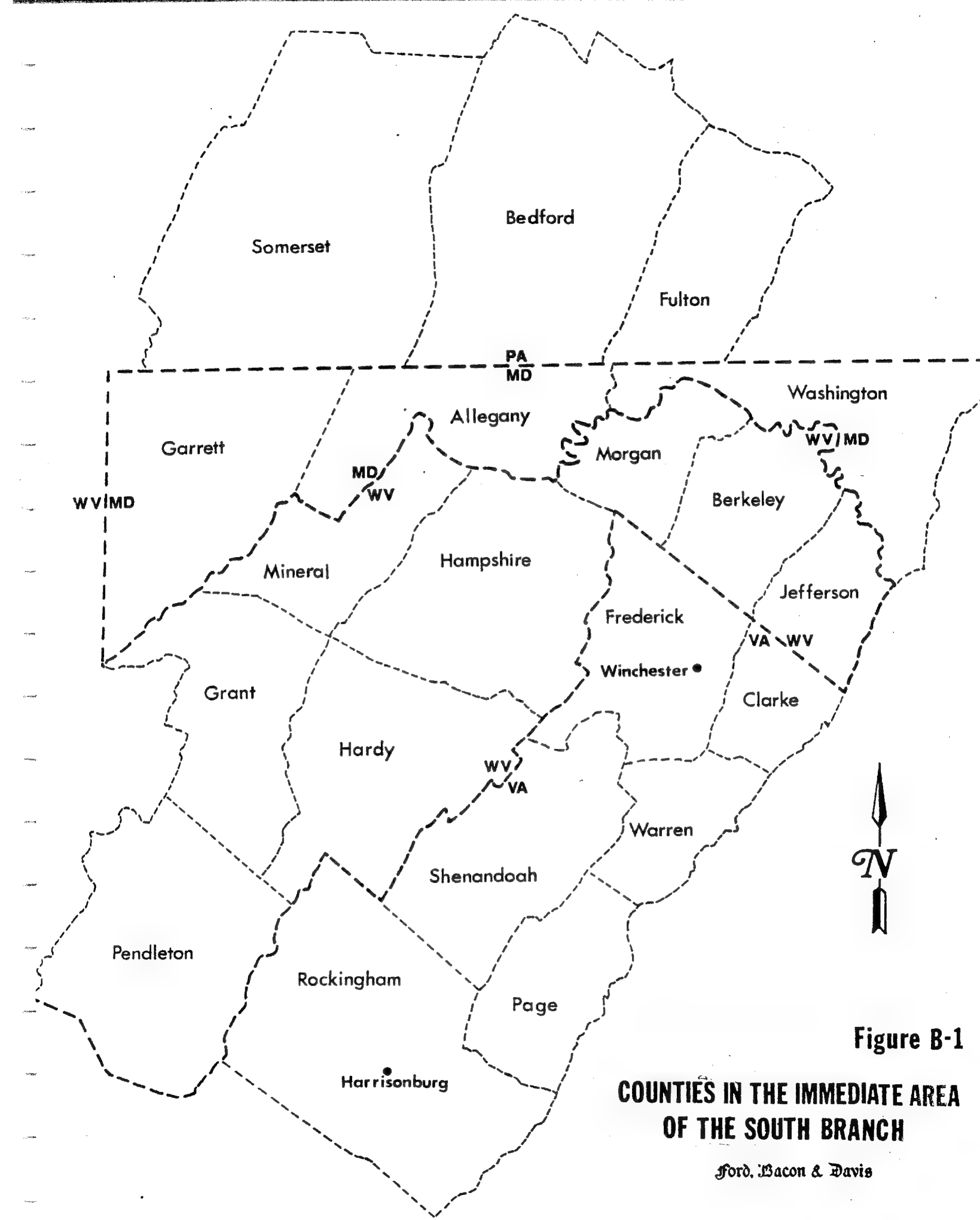


Figure B-1

COUNTIES IN THE IMMEDIATE AREA OF THE SOUTH BRANCH

Ford, Bacon & Davis

along with Morgan County to the immediate northeast and Pendleton County to the immediate southwest. The three Counties also rank very low among the counties of West Virginia. Each county is smaller in population, and much smaller in population density, than are the Virginia cities of Harrisonburg and Winchester.

Table B-1

Comparison of Factors Affecting Industrial Development
Hampshire, Hardy and Grant Counties vs. Nearby Counties

Factor	Rank Among Immediate Area Counties			Value Range
	Hampshire	Hardy	Grant	
Population and Labor Force				
Population (1975)	16/22	18/22	20/22	7,400-107,300 persons
Population (1970)	16/22	18/22	19/22	7,031-103,829 persons
Population Density (1975)	19/22	21/22	20/22	10.6-7,100.0 persons/square mile
Population Density (1970)	19/22	21/22	20/22	10.1-6,476.3 persons/square mile
Civilian Labor Force (Jan. 1977)	18/22	20/22	19/22	2,850-47,225 persons
Unemployed (Jan. 1977)	21/22	20/22	17/22	220-5,440 persons
Male Labor Force (1970)	16/22	18/22	20/22	1,443-26,356 persons
Female Labor Force (1970)	17/22	20/22	21/22	652-14,583 persons
Median School Year Completed (Male, 1970)	18/22	22/22	19/22	8.6-12.1 years
Median School Year Completed (Female, 1970)	19/22	21/22	19/22	8.7-12.2 years
Income and Wage Levels				
Average Hourly Wage of Production Workers (1974)	15/20	20/20	16/20	$2.05-4.52
Median Income (Male, 1969)	19/22	21/22	20/22	$4,241-7,416
Median Income (Female, 1969)	20/22	18/22	22/22	$2,559-3,623
Median Family Income (1969)	18/22	22/22	21/22	$5,300-8,813
Per Capita Income (1972)	16/18	18/18	15/18	$2,307-3,918
Per Capita Income (1969)	17/21	20/21	19/21	$1,777-3,080
Percent of Households Below Poverty Level	6/22	2/22	3/22	12.3%-33.5%
Percent of Families Below Poverty Level	5/22	3/22	2/22	9.4%-28.7%
Present Industry Characteristics				
Manufacturing Establishments (1974)	16/20	16/20	11/20	10-134
Manufacturing Employees (1970)	17/22	18/22	19/22	540-12,700
Value Added to Manufactures (1974)	18/20	13/20	16/20	$2.5-183 million
Value Added to Manufactures per Establishment (1974)	17/20	11/20	15/20	$0.2-3.17 million
Value of Manufactured Shipments (1974)	17/20	13/20	14/20	$5.6-347 million

Table B-1

Factor	Hampshire	Hardy	Grant	Value Range
Farm Acreage (1974)	5/20	6/20	7/20	25,516-252,950 acres
Value of Agricultural Products Sold (1974)	14/20	6/20	16/20	$1.08-101.05 million
Average Value of Agricultural Products Sold per Acre of Farmland (1974)	17/20	12/20	19/20	$24.97-399.48
Woodland Acreage (1974)	2/20	3/20	5/20	5,394-115,648 acres
Value of Forest Products Sold (1974)	7/20	10/20	12/20	$8,000-320,000
Average Value of Forest Products Sold per Acre of Woodland (1974)	14/20	16/20	19/20	$0.49-7.90
Tax and Rent Characteristics				
Total Local Taxes Collected (1967)	20/22	21/22	19/22	$226-14,416 thousand
Property Tax per Capita (1967)	21/22	17/22	11/22	$29-140
Median Residential Gross Rent (1970)	11/22	22/22	13/22	$66-98
Land Value				
Value of Farmland and Buildings (1974)	12/20	13/20	16/20	$5,885-203,410 thousand
Value of Farmland and Buildings (1969)	13/20	15/20	17/20	$7,085-118,995 thousand
Average Value of Farmland and Buildings per Acre (1974)	16/20	17/20	19/20	$230.64-844.74
Average Value of Farmland and Buildings per Farm (1974)	11/20	14/20	17/20	$43,272-239,863

Sources: U. S. Census of Population, 1970
Current Population Reports, U. S. Census
U. S. Census of Manufactures, 1974
Maryland Department of Human Resources, Employment Security Administration
Virginia Employment Commisssion
West Virginia Department of Employment Security
Pennsylvania Department of Labor and Industry
U. S. Census of Agriculture, 1974

X/Y indicates a rank of X among Y counties investigated, highest values being ranked first.

Table B-2

Comparison of Factors Affecting Industrial Development
Hampshire, Hardy and Grant Counties vs. Other West Virginia Counties

Factor	Rank Among West Virginia Counties			
	Hampshire	Hardy	Grant	Value Range
Population (1970)	39/55	46/55	47/55	4,154-229,515 persons
Population Density (1970)	49/55	53/55	50/55	9.4-605.6 persons/square mile
Per Capita Personal Income (1974)	42/55	49/53	40/55	$2,437-5,849
Manufacturing Establishments (1967)	19/55	38/55	21/55	5-180
Manufacturing Employees (1972)	37/55	32/55	38/55	$77-15,255
Value Added to Manufactures (1967)	32/47	26/47	21/47	$0.2-559.6 million
Value of Agricultural Products Sold (1969)	8/55	2/55	10/55	$26.1-7,878 thousand
Average Value of Farmland and Buildings per Acre (1969)	30/55	35/55	46/55	$42-358
Expressway, Truckline, and Feeder Road System Mileage (1972)	31/55	33/55	35/55	26-209 miles
Local Road System Mileage (1972)	19/55	40/55	48/55	135-1,042 miles

Sources: U. S. Census of Population, 1970
U. S. Census of Manufactures, 1967
U. S. Census of Agriculture, 1969
West Virginia Blue Book, 1972
Employment, Wages, 1972, West Virginia Department of Employment Security

X/Y indicates a rank of X among Y counties investigated, highest values being ranked first.

The combined population density of the three Counties is only 18 persons per square mile, the highest individual density being in Hampshire County (20.2 persons per square mile). The figures are well below the statewide averages of each of the four states.

The population of the three-county area (30,700 in 1975) grew by 1,528 persons from 1970 to 1975, mostly in Hampshire County. This represents an increase of 5.2 percent, lower than the Virginia statewide figure but larger than the other statewide figures. Only six other nearby counties, all but one in Pennsylvania or Maryland, had lower rates of increase. Thirteen counties had higher rates.

By 1990, the combined population of the three Counties has been projected by others to be approximately 34,000 reflecting a growth rate (between 1975 and 1990) comparable to that of the entire State of West Virginia.

Within the three Counties, the largest towns are Petersburg (25 percent of the Grant County population), Romney (20 percent of the Hampshire County population), and Moorefield (24 percent of the Hardy County population). Each of these towns consist of a little over 2,200 persons.

As is the case with population, the three Counties have among the smallest labor forces of the immediate area, male and female, totaling only 12,260 among them. Hampshire and Hardy have among the lowest unemployment rates, while Grant has a relatively high rate.

However, only 390 persons are unemployed in Grant County and only 930 in all three counties combined, ranking the counties very low within those of the immediate area.

The median educational levels attained by persons employed in the three Counties, both for male and female employees, are among the lowest of the immediate area, indicating a high proportion of unskilled labor.

Income and Wage Level Factors

While having some influence, prevailing low wage rates are not considered to be as important in industrial location decisions as they once were. It is probable that an industrial plant does not accrue sufficient advantage from low wage rates, vis-a-vis its competitors, to offset other factors. In addition, corporation-wide union contracts have mitagated geographical effects on wage rates.

Hardy, Grant, and Hampshire Counties rank relatively low in the average hourly wage of manufacturing production employees, Hardy County ranking lowest. The average wage in several other counties is nearly double that of Hardy County. The three Counties have among the lowest median income values of the immediate area, and along with Pendleton County (West Virginia) and Garrett County (Maryland), have the lowest per capita income values.

All the income values of these counties fall well below the statewide values of the states examined. These same five counties have the highest proportions of poverty-level families and households of the immediate area. Families below the poverty level account for 28 percent of Grant County families, 27 percent of Hardy County families, and nearly 21 percent of the families in Hampshire County. These figures are greater than the statewide proportion of West Virginia (18 percent), over twice the statewide figure of Virginia, and more than three times the statewide figures of Pennsylvania and Maryland.

The per capita incomes of Petersburg, Moorefield, and Romney are higher than those of their respective counties. Each of the three Counties, particularly Hardy County, have among the lowest per capita personal income values of all the West Virginia counties.

Present Manufacturing and Other Industry Characteristics

The current level of industrial activity is a measure of the success that has been obtained in attracting industry to a certain location. Consideration of pertinent factors will have resulted in the past decisions on location. And if such factors continue into the future, it can be expected that similar decisions would be made then, as well.

In addition, groupings of similar industries are considered to create agglomerative advantages for the firms involved. In other words, plants would be attracted to areas where plants of similar nature are located, if the services which support the industry are already developed.

The largest industrial group within each of the three Counties is manufacturing, accounting for 29, 24, and 30 percent of the employed persons in Grant, Hampshire, and Hardy, respectively. The number of manufacturing employees in each of these three Counties ranks very low among the counties in the immediate area and in the lower half of all West Virginia counties. A large group (29 percent) of the manufacturing employees of the three Counties work for firms associated with furniture, lumber, and wood products. The three Counties rank 6th, 7th, and 8th of 22 in this category. Thirty-nine percent of the Hardy County manufacturing employees work for firms involved with the food industry, ranking the County 6th of the 22 investigated. Nearly one fourth of the manufacturing employees in Grant County work in the textile industry, ranking the County 15th of 22. Among the major manufacturing employers in the three Counties (as of December, 1976) are Kinney Shoe Corporation (440 employees) in Hampshire County, Boise Cascade (202) and Rockingham Poultry (183) in Hardy County, and Edinburg Manufacturing Corporation (175) and SCM Allied-Egry (125) in Grant County.

There are 30 manufacturing establishments in Grant County and nearly that number in Hardy and Hampshire Counties combined, ranking all three Counties in the bottom half of those examined. Between 1967 and 1974, the number of manufacturing establishments in Grant County increased by three, those in Hardy County decreased by three, and those in Hampshire County decreased by half. Total manufacturing employees in each county increased slightly during this time, mostly in Hardy County.

Each of the three Counties rank in the lower half of the counties in the immediate area in the categories of value added to manufactures, value added to manufactures per establishment, and value of shipments. Hampshire and Grant Counties rank relatively low in these categories while Hardy County ranks a bit higher.

Other than manufacturing, the major industries of the three Counties are agriculture and forestry (14.7 percent of employed labor force), particularly in Hampshire and Hardy Counties, and construction (9 percent), particularly in Hardy County. Nearly half of the total land area in each of the three Counties is used for farmland, ranking them high in farm acreage among the counties in the immediate area. Yet only Hardy County ranks high in the value of farm products sold. As an indication of relative farmland productivity, all three Counties rank in the bottom half with

respect to the value of farm products sold per acre of farmland, Hampshire and Grant Counties ranking particularly low. Of all the counties in West Virginia, the three Counties rank very high, especially Hardy County. While decreasing in all other counties in the immediate area, farm acreage increased by 1,342 in Hampshire County between 1969 and 1974.

Hardy, Grant, and Hampshire Counties, along with Pendleton County, have much higher ratios of woodland-to-total-land-area and woodland-to-total-farmland than do the other counties in the immediate area. They are the top-ranked counties in total woodland acreage, however they do not rank as high in the value of forest products sold, and rank even lower in the value of forest products sold per acre of woodland. One half the farmland of these four counties is woodland (including wooded pastureland), accounting for 26.4 percent of the West Virginia state woodland acreage and 18.5 percent of the value of forest products sold of the State.

Transportation Facilities

Generally considered to be equal in importance to an adequate labor supply is access to markets and material supplies. Once the management involved has made the decision to locate in a rural area, availability of good transportation facilities would be a major factor in determining the relative accessibility afforded by competing locations.

Petersburg (Grant County) is served by three common carriers, seven of which are interstate services only. Compared with 22 major towns and cities in the 20 counties of the immediate area, 16 other cities are served by more common carriers. Moorefield (Hardy County), served by eight common carriers, six of which offer interstate service only, ranks behind 18 other cities. Romney (Hampshire County) is served by 11 common carriers, nine of which are interstate carriers. Nine other cities of the 22 are served by more common carriers. Only one truck terminal facility is located in the three Counties, this being in Petersburg. Six other cities have more terminal facilities, most notably Charles Town, (West Virginia), Hagerstown (Maryland), Winchester (Virginia), and Cumberland (Maryland).

Most of the counties near Hardy, Hampshire, and Grant Counties contain segments of interstate highways or other limited-access high-speed roads. The Pennsylvania Turnpike is located in the three Pennsylvania counties examined. Fulton County (Pennsylvania) is further served by I-70. Washington County (Maryland) is directly served by I-70 and I-81. The other two Maryland counties contain partially completed segments of multi-lane highway. The Virginia counties examined are served by I-81, as are Berkeley and Jefferson Counties (West Virginia). The remainder of the West Virginia counties studied have no such highways.

A major east-west highway (Corridor H) is planned but is anticipated to be completed beyond the range of immediate impact.

Among the counties of West Virginia, the three Counties rank within the lower half in expressway, truckline, and feeder road system mileage. Hardy and Grant Counties rank even lower in local road system mileage while Hampshire County ranks in the upper half.

The statewide truck size and weight limits of West Virginia are not as liberal as those of Virginia, Maryland, and Pennsylvania, as shown in Table B-3.

Of the 20 counties in the immediate area under study, only Pendleton County (West Virginia) and Fulton County (Pennsylvania) are not directly served by any railroad line. The other counties are served by at least one rail line and in some cases by several lines and rail companies, specifically Berkeley and Jefferson (West Virginia), Washington (Maryland), and Rockingham and Warren (Virginia).

Tax and Rent Consideration

While still a consideration, tax rates have been of decreasing importance in industrial location decisions. Other incentives afforded by a State government can be a deciding factor. However, such incentives tend to be given

Table B-3

Truck Size and Weight Limits

State	Height (feet)	Width (inches)	Length (feet)		Axle Load (pounds)		Maximum Allowable Gross Weight
			Tractor & Full or Tractor & Semi	Tractor & Semi & Full	Single	Tandem	
Maryland	13.5	96	55	65	22,400	40,000	73,280 pds.
Pennsylvania	13.5	96	55	Not permitted	22,400	36,000	73,280 pds.
Virginia	13.5	96	55	Not permitted	20,000[2]	34,000[3]	76,000 pds.
West Virginia	12.5	96	50[1]	Not permitted	18,000	32,000	70,000 pds.

Source: American Motor Carrier Directory, 1976 Spring Issue, No. 65

Notes:

[1]55 on designated highways

[2]18,000 on Interstate Highways

[3]32,000 on Interstate Highways

on a case by case basis and a general comparison is difficult to make.

Grant County ranks midway among the counties of the nearby area in the value of per capita property taxes, while the values of Hardy and Hampshire Counties rank among the very lowest. The values in each of the three Counties are all lower than the West Virginia statewide value, which in turn is much lower than the statewide values of each of the other three neighboring states. The highest values are found in the Maryland counties.

The 1975 non-municipal property tax assessment rate of Hardy, Grant, and Hampshire Counties rank 23rd, 36th, and 43rd among the 55 counties of West Virginia, indicating generally lower taxes. Comparing a total of 232 West Virginia municipalities, the 1975 municipal property tax assessment rate of Romney and Capon Bridge (Hampshire County) is very low, ranking 204th. Petersburg and Bayard (Grant County) also have a relatively low rate (ranking 190th) while Moorefield and Wardensville (Hardy County) rank about midway (132nd).

Pendleton (West Virginia), Hardy, Hampshire, and Grant Counties collect the lowest amount of total tax revenue, in that order.

Hampshire and Grant Counties lie about midway in rank of the nearby counties in median residential gross rent while Grant County ranks nearly last.

The West Virginia statewide figure is well below those of the other three states and comparable to or greater than those of the three Counties.

Availability and Value of Land

The availability of reasonably-priced land could be expected to have a long-term influence on location decisions. Farmland represents the largest single source of land available for new industrial development. The reduction of farm acreage in all of the counties of the immediate area (except Hampshire) between 1969 and 1974 indicates farmland is being converted to alternate purposes. Farmland is abundant in all but a few of the nearby counties as well as in Hampshire, Hardy, and Grant Counties. As was discussed previously, the three Counties rank relatively high in total farmland acreage. The value of this farmland, and the buildings upon it, ranks midway to relatively low compared with the farmland in the other counties. On a per acre basis, the average value of farmland (and buildings) in the three Counties rank in the bottom quarter of the counties. Except for Jefferson County, farmland values in the West Virginia counties are generally lower per acre than in the counties of the other states that were examined. The values per acre in the three Counties are lower than the West Virginia statewide average value. This reflects the larger average size of the farms in the three counties, a category in which they rank first, second, and third within the immediate area.

Other Factors

Electrical power supplies are adequate and relatively inexpensive in each of the counties of the immediate area. Residential and industrial power rates are somewhat cheaper in the West Virginia and Maryland counties than in most parts of the other counties. Power costs would be an insignificant factor in industrial development to all but the most power-intensive of industries.

As previously discussed, the factors described in this Appendix have varying degrees of importance in the choice of plant location, depending on the type and extent of industry being established. However, an adequate labor supply and an efficient transportation system could be regarded as having high priority in most cases.

The current average wage and income levels of the three Counties are relatively low. However, the advantage of "cheap labor" is largely negated by the limited supply. The total labor force in each of the three Counties is less than the amount of unemployed labor alone in both Alleghany and Washington Counties in Maryland. Also, the labor force is relatively unskilled.

The three Counties remain relatively remote because of the lack of high speed multi-lane east-west highway access. This remoteness accounts to a considerable degree for the low land values and low tax rates which might otherwise be important factors influencing location decisions.

Taken on balance, it can be concluded that the three Counties could attract light industry that could utilize inexpensive unskilled labor and could take advantage of the relatively low land values to minimize their investment in required facilities. However, such light industries ordinarily do not generate large amounts of railroad traffic.

Appendix C

TRAFFIC AND REVENUE PROJECTIONS

Table C-1

Five-Year Branch Line Traffic Projection at Current Level of Service and Track Condition

Base Year Traffic Change	Traffic of Major Shippers[a]	Traffic of Minor Shippers by Commodity				Total
		Feed	Fertilizer	Lumber	Other	
No Traffic Change						
Branch Traffic Cars	1,200	52	58	33	44	
Probability		.50	.50	.45	.70	
Projected Traffic Cars	466	26	29	15	31	567
20% Traffic Increase						
Branch Traffic Cars	1,457	62	70	40	53	
Probability		.25	.25	.09	.13	
Projected Traffic Cars	282	16	18	4	7	327
40% Traffic Increase						
Branch Traffic Cars	2,028	73	81	46	62	
Probability		.05	.05	.01	.05	
Projected Traffic Cars	917	4	4	0	3	928
20% Traffic Decrease						
Branch Traffic Cars	961	42	46	26	35	
Probability		.20	.20	.45	.12	
Projected Traffic Cars	21	8	9	12	4	54
Total Projected Traffic Cars	1,686	54	60	31	45	1,876

Note: (a) Due to the nature of the operations of some major shippers, the projections in this column are of greater validity than if forced to fit the precise mathematical pattern sought.

Table C-2

Five-Year Branch Line Traffic Projection at Current Level of Service and Upgraded Track Condition

Base Year Traffic Change	Traffic of Major Shippers[a]	Traffic of Minor Shippers by Commodity				Total
		Feed	Fertilizer	Lumber	Other	
No Traffic Change						
Branch Traffic Cars	992	52	58	33	44	
Probability		.50	.50	.45	.70	
Projected Traffic Cars	389	26	29	15	31	490
20% Traffic Increase						
Branch Traffic Cars	1,208	62	70	40	53	
Probability		.25	.25	.09	.13	
Projected Traffic Cars	215	16	18	4	7	260
40% Traffic Increase						
Branch Traffic Cars	1,647	73	81	46	62	
Probability		.05	.05	.01	.05	
Projected Traffic Cars	780	4	4	0	3	791
20% Traffic Decrease						
Branch Traffic Cars	794	42	46	26	35	
Probability		.20	.20	.45	.12	
Projected Traffic Cars	13	8	9	12	4	46
Total Projected Traffic Cars	1,397	54	60	31	45	1,587

Note: (a) See Table C-1 note.

Table C-3

Five-Year B&O Revenue Projection at Current Level of Service and Track Condition

Base Year Traffic Change	Revenue from Major Shippers(a)	Revenue from Minor Shippers by Commodity				Total
		Feed	Fertilizer	Lumber	Other	
No Traffic Change						
Branch Revenue ($)	647,368	19,796	25,333	20,302	21,024	
Probability		.50	.50	.45	.70	
Revenue Value ($)	228,172	9,898	12,667	9,136	14,717	274,590
20% Traffic Increase						
Branch Revenue ($)	832,042	23,755	30,400	24,362	25,229	
Probability		.25	.25	.09	.13	
Revenue Value ($)	135,774	5,939	7,600	2,193	3,280	154,786
40% Traffic Increase						
Branch Revenue	1,168,516	27,714	35,466	28,423	29,434	
Probability		.05	.05	.01	.05	
Revenue Value	599,673	1,386	1,773	284	1,472	604,588
20% Traffic Decrease						
Branch Revenue ($)	517,894	15,837	20,266	16,241	16,819	
Probability		.20	.20	.45	.12	
Revenue Value ($)	9,142	3,167	4,053	7,309	2,018	25,689
Total Revenue Value ($)	972,761	20,390	26,093	18,922	21,487	1,059,653

Note: (a) See Table C-1 note.

Table C-4

Five-Year B&O Revenue Projection at Current Level of Service and Upgraded Track Condition

Base Year Traffic Change	Revenue from Major Shippers[a]	Revenue from Minor Shippers by Commodity				Total
		Feed	Fertilizer	Lumber	Other	
No Traffic Change						
Branch Revenue ($)	647,368	19,796	25,333	20,302	21,024	
Probability		.50	.50	.45	.70	
Revenue Value ($)	198,922	9,898	12,667	9,136	14,717	245,340
20% Traffic Increase						
Branch Revenue ($)	832,042	23,755	30,400	24,362	25,229	
Probability		.25	.25	.09	.13	
Revenue Value ($)	114,602	5,939	7,600	2,193	3,280	133,614
40% Traffic Increase						
Branch Revenue	1,168,516	27,714	35,466	28,423	29,434	
Probability		.05	.05	.01	.05	
Revenue Value ($)	689,374	1,386	1,773	284	1,472	694,289
20% Traffic Decrease						
Branch Revenue ($)	517,894	15,837	20,266	16,241	16,819	
Probability		.20	.20	.45	.12	
Revenue Value ($)	6,542	3,167	4,053	7,309	2,018	23,089
Total Revenue Value ($)	1,009,440	20,390	26,093	18,922	21,487	1,096,332

Note: (a) See Table C-1 note.

Appendix D

SHIPPER SURVEY QUESTIONNAIRE

Firm Code Number _____

SOUTH BRANCH BALTIMORE AND OHIO RAILROAD

PART A: RAIL FACILITIES

(1) Please check the rail station that you use.

_____Romney _____Petersburg

_____Moorefield _____Other _____ (Please specify)

(2) Do you have a private siding? YES ____ NO ____

(3) Do you ship or receive oversize loads by rail? YES ____ NO ____

If "YES", what clearances do you require?

Height _____ Width _____

(4) Do you ship or receive rail cars with lading in excess of 80 tons? (80 tons = 160,000 lbs.) YES ____ NO ____

(5) What percent of your rail traffic is shipped or received in privately-owned or leased rail cars? _____%

(6) What percent of your rail traffic is shipped or received in multiple rail car or unit train shipment? _____%

What is the average number of cars per shipment? _____ cars

(7) Do you have any special equipment or pool equipment that you use in shipping by rail? YES ____ NO ____

PART B: TRAFFIC INFORMATION

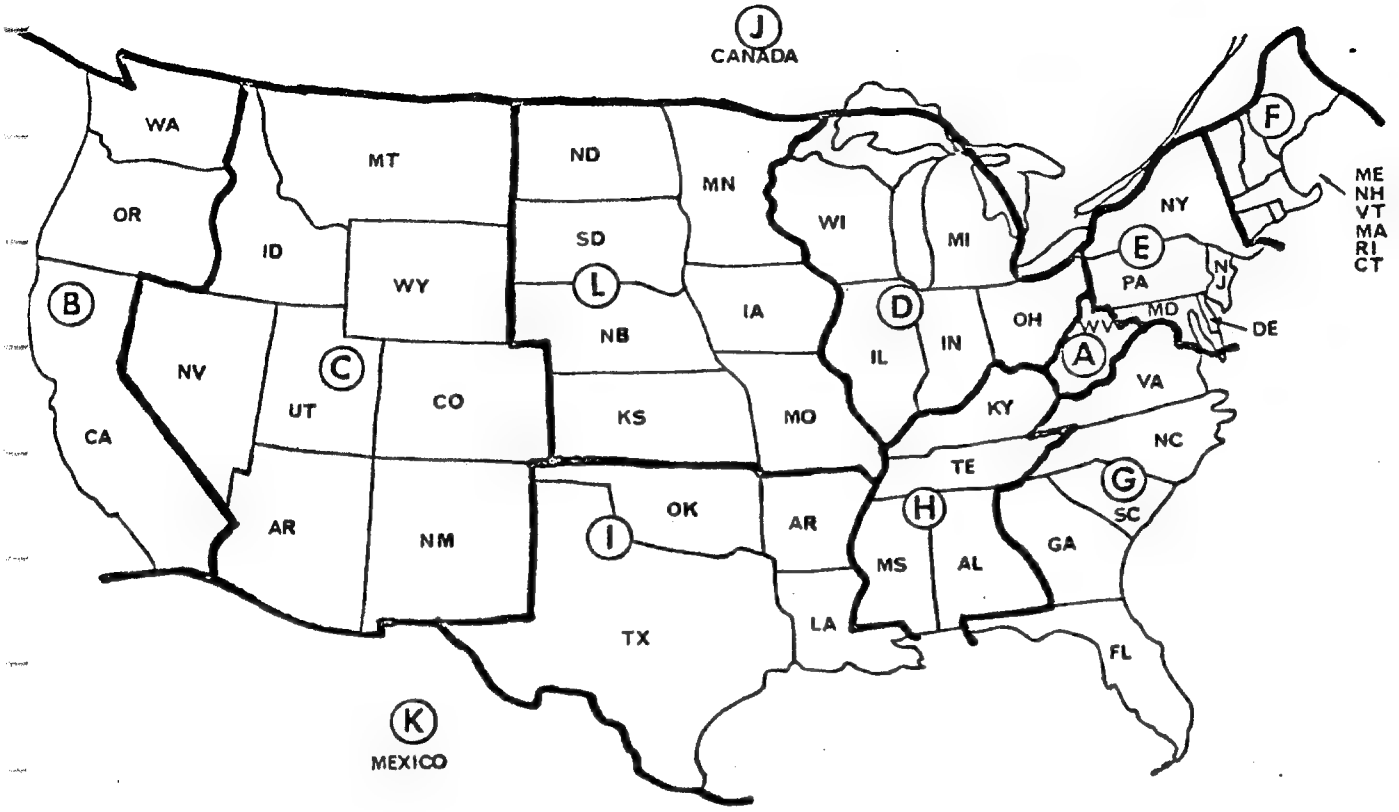
(8) For each of the years 1972 through 1976 please indicate the number of rail carloads that you shipped or received. (If none, so state)

	1972	1973	1974	1975	1976
Shipped					
Received					

(9) For each of the years 1972 through 1976, please indicate the total freight tonnage that you shipped or received by all modes of transportation.

	1972	1973	1974	1975	1976
Shipped					
Received					

IN ANSWERING QUESTIONS 10 AND 11, PLEASE REFER TO THE ZONES SHOWN BELOW:



(10) Please list the commodities that you shipped during 1976. (If none, so state)

BY RAIL:

Commodity	Railcar Type	Net Weight per Car	Number of Cars	Destination Zone

BY TRUCK (include piggyback):

Commodity	Truck Type	Net Weight per Truck (tons)	Number of Trucks	Destination Zone	Shippir Cost

(11) Please list the commodities that you received during 1976.

BY RAIL:

Commodity	Railcar Type	Net Weight per Car (tons)	Number of Cars	Origin Zone

BY TRUCK (include piggyback):

Commodity	Truck Type	Net Weight per Truck (tons)	Number of Trucks	Origin Zone	Shipping Cost

PART C: FUTURE PLANS

12) Assuming that there is no change in the level of rail service available to your company, please indicate the extent to which you feel the following items would change. (If no change is anticipated, enter "0%" in both columns.)

	Percent Increase	Percent Decrease
a) Within 1 Year:		
Employment	%	%
Total Tonnage Shipped (all modes)	%	%
Total Tonnage Received (all modes)	%	%
Rail Cars Shipped	%	%
Rail Cars Received	%	%
b) In 2-5 Years:		
Employment	%	%
Total Tonnage Shipped (all modes)	%	%
Total Tonnage Received (all modes)	%	%
Rail Cars Shipped	%	%
Rail Cars Received	%	%
c) In 5-10 Years:		
Employment	%	%
Total Tonnage Shipped (all modes)	%	%
Total Tonnage Received (all modes)	%	%
Rail Cars Shipped	%	%
Rail Cars Received	%	%

PART D: RAIL SERVICE CHANGES

(13) What do you feel are the two most important ways in which railroads could improve their service to your facility? (check two)

_____ Increase frequency of local service

_____ Restructure freight rates

_____ Improve transit time

_____ Increase availability of empty cars for loading

_____ Other (specify)

If improvements were made in the items checked, what annual increase in rail use could you make? (enter number)

_____ more rail cars shipped than at present

_____ more rail cars received than at present

In answering questions 14, 15, 16, and 17 please assume, for purposes of this study only, that rail service to your location were to be discontinued.

(14) Which of the following alternatives would best describe what your firm would do? (check one)

_____ Remain at present location with no effect

_____ Remain at present location with a reduced level of operation

_____ Close facility and relocate within West Virginia

_____ Close facility and relocate outside West Virginia

_____ Close facility and not relocate

(15) Would you continue to ship and receive by rail from another location? YES _____ NO _____

If "YES", how many annual rail cars would you ship and receive?

_____ rail cars shipped

_____ rail cars received

(16) In what alternative ways would your current rail shipments be made?

	Truck to Team Track or Rail Head	Truck to Barge	Piggy-back	Truck Only
Current Rail Tonnage Shipped	%	%	%	%
Current Rail Tonnage Received	%	%	%	%

(17) How would your firm be affected with regard to the following items? (If no effect is anticipated, enter "0%" in both columns.)

	Percent Increase	Percent Decrease
Employment	%	%
Annual Sales	%	%
Operating Costs	%	%

(18) Would you pay a per-carload surcharge for all goods shipped or received by rail, if that were the only alternative for retaining rail service to your location? (NOTE: Your answer to this is for planning purposes only, and does not in any way commit you to paying any such surcharge.)

_____ YES _____ NO

PART E: GENERAL INFORMATION

(19) For the years 1972 through 1976, please enter the following information concerning your firm.

	1972	1973	1974	1975	1976
Number of Employees *					
Annual Payroll ($)					
Annual Sales ($)					
Transportation Costs					

*full time

(20) How often are you contacted by a railroad representative soliciting your traffic?

_____ times per year

(21) How often are you contacted by a motor carrier representative soliciting your traffic?

_____ times per year

(22) How would you classify the rail service you presently receive?

_____ Excellent _____ Average

_____ Satisfactory _____ Poor

PART F: CAR WEIGHT CHANGES

(23) If the car weight restriction on the line were raised to 263,000 pounds, what annual change in rail use would you make. (enter number)

	Increase	Decrease
Rail Cars Shipped	_____	_____
Rail Cars Received	_____	_____
Tonnage Shipped	_____	_____
Tonnage Received	_____	_____

PART G: ADDITIONAL COMMENTS

Please provide any additional information or comments that you feel would assist in the study.